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Corpus-driven development of a gesture typology based on the Bielefeld Speech and Gesture Alignment Corpus

We introduce the multi-modal Bielefeld Speech and Gesture Alignment (SaGA) corpus, and approaches to data-driven development and validation of a gesture typology.

The SaGA corpus contains 25 route-description dialogues. 280 minutes of video/audio material were transcribed (39.435 words). Additionally, boundaries of ~6000 gestures were marked, and ~5000 of these were annotated in detail and rated (Lücking et al. 2010).

We set up a typology of iconic gestures on the basis of one dialogue (~400 gestures). These types are grouped into classes according to their spatial complexity (Hahn and Rieser 2010, Rieser 2010).

Afterwards, we attempt to verify them by performing classification tasks. These results might aid in automated classifications of the remaining gestures. With features as input, gestures can be (1) sorted into six classes, and (2) assigned the correct spatial dimensions.

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